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**Title :** Entanglement of Australian sea lions and New Zealand fur seals in marine debris: comparison before and after implementation of fishery bycatch policies.

**Category :** Conservation

**Student :** Doctoral

**Preferred Format :** Poster Presentation

**Abstract :** In 1999 and 2000 the Australian Government developed new policies to reduce the mortality of non-target species interacting with commercial fisheries. We analysed Australian sea lion and New Zealand fur seal entanglement data collected before and after the introduction of these bycatch policies to determine their efficacy in reducing seal entanglement rates through improved waste disposal practices on fishing boats. Contrary to expectations, we found that entanglement rates increased for both species. The Australian sea lion entanglement rate (1.3% in 2002) and the New Zealand fur seal entanglement rate (0.9% in 2002) are the third and fourth highest reported for any seal species. Entanglement-related mortality may be impeding the recovery of Australian sea lion populations from 19th century sealing. Australian sea lions were most frequently entangled in monofilament gillnetting debris that most likely originated from the southern shark fishery, an important fishery in the region where sea lions forage - south and east of Kangaroo Island. In contrast, New Zealand fur seals were most commonly entangled in loops of packing tape and trawl net fragments. Based on recent entanglement studies, we estimate that 1,478 seals die from entanglement each year in Australia. Simple remedies such as education programs and government incentives to fishers could eliminate many entanglements.